

2001 CORN CHEMICAL USAGE

Nitrogen was applied to 96% of the total 2001 corn acreage in the 19 states surveyed. All of the major producing states had at least 87% or more of the acreage treated. Growers used an average of 1.8 applications per acre while applying 73 pounds of nitrogen per treatment. In the states surveyed, 79% of the planted corn acreage received phosphates. Potash fertilizer was applied to 65% of the corn acreage.

Herbicides were applied to 98% of the 19 state total corn acreage in 2001, while insecticides were used on 29% of the acreage. In Minnesota, Atrazine was the most used herbicide with 51% of the reported acreage being treated. Atrazine was applied at a rate of 0.83 pound per acre on the average. Acetochlor was the next most widely used with 42% treated. Clopyralid and Flumetsulam followed with each applied to 23% of the acreage. Tefluthrin was the most-used insecticide, applied to 3% of the acreage.

CORN: Acreage, Percent Receiving Chemicals, Number of Applications, Rates per Application, Selected States, 2001

State	Area Planted	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied 1/	Appli- cations	Rate per Appli- cation	Area Applied 1/	Appli- cations	Rate per Appli- cation	Area Applied 1/	Appli- cations	Rate per Appli- cation	Area Applied 1/	Area Applied 1/
	1,000 Acres	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Percent
IA	11,700	87	1.5	83	62	1.0	53	60	1.0	66	99	7
MN	6,800	97	1.6	69	90	1.0	43	81	1.0	57	99	*
SD	3,800	95	1.5	72	69	1.0	43	32	1.0	29	96	8
WI	3,400	98	1.9	55	95	1.0	35	89	1.1	48	98	16
TOTAL 2/	70,745	96	1.8	73	79	1.1	50	65	1.1	75	98	29

1/ Refers to acres receiving one or more applications of a specific chemical.

2/ Refers to 19 major corn states including: CO, GA, IL, IN, IA, KS, KY, MI, MN, MO, NE, NY, NC, ND, OH, PA, SD, TX, and WI.

* Insufficient reports to publish data for insecticides.

CORN: Frequency and Extent of Chemical Usage by Active Ingredient, Minnesota, 2001 1/

Active Ingredient	Area Applied 2/	Applications	Rate per Application	Rate per Year	Total Applied
	Percent	Number	Pounds	Pounds	1,000 Pounds
HERBICIDES:					
2,4-D	7	1.0	0.23	0.23	105
Acetochlor	42	1.0	1.47	1.47	4,227
Atrazine	51	1.0	0.83	0.86	2,976
Bromoxynil	3	1.0	0.16	0.16	34
Clopyralid	23	1.0	0.11	0.11	170
Dicamba	17	1.0	0.25	0.25	292
Dicamba, Dimet. salt	5	1.0	0.15	0.15	51
Dicamba, Pot. salt	7	1.0	0.30	0.30	132
Diflufenzopyr-sodium	6	1.0	0.06	0.06	23
Dimethenamid	10	1.0	1.10	1.10	780
EPTC	7	1.0	3.35	3.35	1,702
Flumetsulam	23	1.0	0.04	0.04	64
Glufosinate-ammonium	6	1.0	0.33	0.34	134
Glyphosate	7	1.0	0.70	0.76	387
Metolachlor	6	1.0	1.97	1.97	800
Nicosulfuron	21	1.0	0.02	0.02	29
Pendimethalin	3	1.0	1.02	1.02	196
Primisulfuron	3	1.0	0.02	0.02	5
Rimsulfuron	10	1.0	0.01	0.01	7
S-Metolachlor	8	1.0	1.72	1.72	876
INSECTICIDES:					
Tefluthrin	3	1.0	0.09	0.09	17

1/ Planted areas in 2001 for Minnesota were 6.80 million acres.

2001 SOYBEAN CHEMICAL USAGE

Nitrogen was applied to 11% of the total 2001 soybean acreage in the eight states surveyed. Growers in the eight states applied an average of 1.0 treatments per acre and used an average of 22 pounds per treatment. In the states surveyed, 17% of the soybean acreage received phosphate fertilizer. Potash fertilizer was applied to 20% of the soybean acreage.

Herbicides were applied to 96% of the total soybean acreage in the eight states surveyed. Glyphosate was applied to 67% of the Minnesota acreage, with Imazamox applied to 14% of the acreage. Growers in the surveyed states applied insecticide to only 1 percent of the total soybean acres planted. There were too few reports to publish individual state data for the insecticides. Growers reported few fungicide or other chemical applications.

SOYBEANS: Acreage, Percent Receiving Chemicals, Number of Applications, Rates per Application, Selected States, 2001

State	Area Planted	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied 1/	Appli- cations	Rate per Appli- cation	Area Applied 1/	Appli- cations	Rate per Appli- cation	Area Applied 1/	Appli- cations	Rate per Appli- cation	Area Applied 1/	Area Applied 1/
	1,000 Acres	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Percent
IL 2/	10,700	10	1.0	37	12	1.0	72	22	1.0	105	96	*
IN 2/	5,600	12	1.0	16	20	1.0	49	36	1.0	105	98	*
IA 2/	11,000	5	1.1	16	9	1.0	45	10	1.0	66	95	*
MN 2/	7,300	13	1.0	16	13	1.0	34	12	1.0	48	99	*
TOTAL 3/	52,000	11	1.0	22	17	1.0	48	20	1.0	83	96	1

1/ Refers to acres receiving one or more applications of a specific chemical.

2/ Insufficient reports to publish data for insecticides.

3/ Refers to eight major soybean states including: AR, IL, IN, IA, MN, MO, NE, and OH.

* Amount represents less than 1 percent.

SOYBEANS: Frequency and Extent of Chemical Usage by Active Ingredient, Minnesota, 2001 1/

Active Ingredient	Area Applied 2/	Applications	Rate per Application	Rate per Year	Total Applied
	Percent	Number	Pounds	Pounds	1,000 Pounds
HERBICIDES:					
Fomesafen	12	1.0	0.18	0.18	159
Glyphosate	67	1.3	0.65	0.87	4,240
Imazamox	14	1.0	0.04	0.04	37
Imazethapyr	11	1.0	0.06	0.06	44
Pendimethalin	12	1.0	1.10	1.10	960
Trifluralin	8	1.0	0.70	0.70	424

1/ Planted acres in 2001 for Minnesota were 7.30 million acres.

2/ Refers to acres receiving one or more applications of a specific chemical.

2001 FALL POTATOES CHEMICAL USAGE

The seven survey states totaled 8.9 million planted acres in 2001. Nitrogen was applied to 98% of the total 2001 fall potato acreage in the seven states surveyed. Growers averaged 3.4 applications per acre applying 62 pounds per treatment. In the states surveyed, 95% of the planted fall potato acreage received phosphates. Potash fertilizer was applied to 86% of the fall potato acreage.

Herbicides were applied to 82% of the total fall potato acreage in the seven states in 2001. Metribuzin was applied to 64% of the acreage, with EPTC applied to 20% of the acres. Insecticide applications were reported on 93% of the total fall potato planted acreage, while fungicide applications were reported on 85% of the acreage.

FALL POTATOES: Acreage, Percent Receiving Chemicals, Number of Applications, Rates per Application, Major States, 2001

State	Area Planted	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Area Applied 1/
	1,000 Acres	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Percent
MN	59	93	2.0	57	89	1.2	70	89	1.2	114	78	95
ND 2/	118											
WI	84	100	4.3	60	98	1.3	121	100	2.7	104	88	86
TOTAL 3/	898	98	3.4	62	95	1.6	102	86	1.5	114	82	93

1/ Refers to acres receiving one or more applications of a specific chemical.

2/ Data not published due to insufficient number of reports.

3/ Refers to seven major fall potatoes states including: ID, ME, MN, ND, OR, WA, and WI.

FALL POTATOES: Frequency and Extent of Usage by Active Ingredient, Minnesota, 2001

Active Ingredient	Area Applied 1/	Applications	Rate per Application	Rate per Year	Total Applied
	Percent	Number	Lbs. Per Acre	Lbs. Per Acre	1,000 Pounds
HERBICIDES:					
Linuron	15	1.0	1.22	1.22	11
Metolachlor	17	1.0	1.71	1.71	17
Metribuzin	52	1.0	0.33	0.35	11
Rimsulfuron	17	1.0	0.02	0.02	2/
S-Metolachlor	16	1.0	1.12	1.12	10
INSECTICIDES:					
Cyfluthrin	37	1.6	0.03	0.05	1
Imidacloprid	88	1.3	0.11	0.15	8
FUNGICIDES:					
Azoxystrobin	35	2.9	0.10	0.29	6
Chlorothalonil	71	4.9	0.85	4.19	176
Cymoxanil	21	1.2	0.12	0.15	2
Mancozeb	53	3.5	1.43	5.07	160
Metiram	19	5.5	1.32	7.28	80
Triphenyltin hydroxide	15	3.5	0.10	0.36	3
OTHER CHEMICAL:					
Diquat	51	1.3	0.38	0.52	15

1/ Refers to acres receiving one or more applications of a specific chemical.

2/ Total applied is less than 1,000 lbs.